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ABSTRACT

This booklet discusses the present state of environmental adult education and its major difficulties and shortcomings and develops recommendations for further development of this field. Section 1 discusses linking environmental and social issues and locating environmental problems within the context of one's daily life and action. Section 2 focuses on strengthening collaboration between environmentalists and adult educators. Section 3 addresses environmental education as a central theme for adult education. Section 4 highlights the urgent task of environmental education to overcome misconceptions about a conflict between economic growth and sustainable development. Section 5 considers one main issue that women's projects address: the consumption of fuel for cooking and heating and the use of environmental-friendly resources for the whole community. Section 6 describes the global dimensions of current environmental problems. Section 7 emphasizes the need to promote and build on local knowledge and indigenous traditions in environmental education. (YLB)

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ED 435 010

A series of 29 booklets documenting workshops held at the Fifth International Conference on Adult Education

6a Adult environmental education

Adult environmental education: awareness and environmental action

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Theme 6: Adult learning in the context of environment, health and population

Booklets under this theme:

6a Adult environmental education: awareness and environmental action

6b Health promotion and health education for adults

6c Adult education and population issues in the post-Cairo context

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Foreword

In July 1997 the Fifth International Conference on Adult Education was held in Hamburg, organised by UNESCO and in particular the UNESCO Institute for Education, the agency's specialist centre on adult learning policy and research. Approximately 1500 delegates attended from all regions of the world, with representatives of 140 member states and some 400 NGOs. In addition to the work of the commissions and plenary which debated the official documents of the Conference The Hamburg Declaration and The Agenda for the Future, there were 33 workshops organised around the themes and sub-themes of the Conference.

As part of its CONFINTEA follow-up strategy, the UNESCO Institute for Education has produced this series of 29 booklets based on the presentations and discussions held during the Conference. The recordings of all the workshops were transcribed and synthesized over one year, edited, and then formatted and designed. A tremendous amount of work has gone into this process. Linda King, coordinator of the monitoring and information strategy for CONFINTEA, was responsible for overseeing the whole process. Madhu Singh, senior research specialist at UIE, undertook the mammoth task of writing almost all the booklets based on an analysis of the sessions. She was helped in the later stages by Gonzalo Retamal, Uta Papen and Linda King. Christopher McIntosh was technical editor, Matthew Partridge designed the layout and Janna Lowrey was both transcriber and translator.

The booklets are intended to draw out the central issues and concerns of each of the CONFINTEA workshops. They are the memory of an event that marked an important watershed in the field of adult learning. We hope that they will be of use both to those who were able to attend CONFINTEA V and those who were not. We look forward to your comments, feedback and continuing collaboration with the UNESCO Institute for Education.

Paul Bélanger,
Director, UNESCO Institute for Education, Hamburg
and Secretary General of CONFINTEA

Adult environmental education: awareness and environmental action

Introduction

The central aim of the workshop "Adult environmental education; awareness for environmental action" was to discuss the present state of environmental adult education, its major difficulties and shortcomings and to develop recommendations for the further development of this field. The Fifth International Conference on Adult Education provided a unique opportunity to create a dialogue between policy-makers, educational planners, practitioners, and between governments and NGOs.

The workshop was jointly organised by the International Network for Sustainable Energy (INFORSE), the Learning for the Environment Programme (LEAP) of the International Council for Adult Education, the University of Lüneburg and the UNESCO Institute for Education, Hamburg. The panel discussion, chaired by Walter Leal Filho, University of Lüneburg, Germany, featured the following speakers: Ruth Kiwanuka, Joint Energy and Environment Projects, Uganda; Angele Fatou Sarr, FOPEN Solaire, Senegal; Zareen Myles, Women's Action for Development, India; Pierre Foulani; Adoum Ngaba-Waye, CREFELD, Tschad; Raul A. Montenegro, Fundación Para la Defensa del Ambiente, Argentina. The Minister of Education from Lower Saxony, Professor Wernstedt, opened the session.

A poster session showing examples of adult environmental education in different regions of the world was also organised. This featured fuel wood saving and clay stoves in households in Uganda; education and information programmes for peasants in Senegal; household bio-gas systems in India; teaching adults about the environment in Argentina; and desertification in Africa.

Adult environmental education: Learning for action

According to a working definition provided in 1992 by UNEP/UNESCO/ OECD Paris, environmental education is "a permanent process in which individuals gain awareness of their environment and acquire the knowledge, values, skills, experiences, and also the determination which will enable them to act individually and collectively to solve present and future environmental problems... as well as to meet their needs without compromising those of future generations."

Adult environmental education should disseminate knowledge about the environment's direct and indirect physical and related social impact. It should also transmit knowledge on the interaction between local activities and their effects which may occur further away. Direct impacts, such as deforestation and diseases caused by polluted water, are visible and tangibly affect daily life. Solutions to them can be found in the short term if appropriate measures are taken. Indirect environmental impacts may include increased soil erosion, a disproportionate workload for women, general depletion of resources such as food, animal fodder and water, reduction of numbers and diversity of wildlife and increased risk of bush fires and flooding. Indirect effects take longer to be felt. They occur over a wider geographical area. Their solution requires long-term planning, commitment and global approaches

Adult education has often included a political and socially transformative perspective. Since Paulo Freire's work on literacy and its emancipatory potential, the social and political role of adult education has become a central pillar of much of today's practice in this field. With his motto "from reading the word to reading the world", Freire invited people to explore the social and political as well as the physical environment. The environmental factor is now becoming increasingly important and can hardly be ignored in education efforts committed to social and political goals. With the links between changes in the physical environment and current social and political problems becoming more evident, environmental education is assuming an important social function. It is developing into a more holistic education project similar to the education envisaged by Freire. However much remains to be done. Much environmental education is still purely science and technology oriented rather than addressing environmental and social issues in an integrated way.

Linking environmental and social issues and locating environmental problems within the context of our daily lives and action are important challenges for adult environmental education. In fact, as one speaker said: "There are no such things as environmental problems, there are just a lot of social problems."

Current adult environmental education is experimenting with different ways to bring about change and initiate action. Such projects go beyond creating understanding and awareness. They aim at developing skills, creating a sense of commitment and stimulating individual and collective action. Environmental education has the potential to bring about action at individual, community and governmental levels.

However, environmental activists and educators are becoming aware of the kinds of situation that create barriers to participatory action for the environment, such as:

- Situations where marginal communities face grave economic and social problems.
- Where there is a lack of environmental awareness and of commitment to environmentally friendly policies among governments and industry.
- Where local initiatives do not achieve their aims because of lack of support from the institutional sector, and because of lack of co-ordination with other initiatives.

Environmental education therefore needs to address all sectors of society: people, communities, public institutions, the private sector, governments, policy-makers and international organisations.

Strengthening collaboration

Adult learning is a central tool in the process of raising environmental awareness and promoting environmentally supportive action. Many environmental organisations disseminate information, organise community initiatives and practise non-formal adult education. Environmental educators and activists recognise the need to strengthen and innovate this educational dimension of their work. Environmental groups often seek the collaboration of adult educators, and in this sense they are trying to change their educational work from mere information sharing to more participatory and creative ways of learning.

Environmental issues are becoming more and more important for other fields of adult education too. Given the negative effects of environmental degradation and pollution on people's health, environmental questions can be dealt with in health education programmes.

Environmental topics can also be an important component of community education programmes. Such programmes can provide a frame for linking environmental issues with social and political problems of the community. In a community education project in Northern Ontario, the two most important issues identified by the community were youth violence and soil erosion. At first sight it seemed doubtful how such apparently disconnected issues could be linked to each other. However it soon became clear that the two problems had a lot to do with each other.

Collaboration between environmentalists and adult educators should be strengthened. They could, for example, join efforts in planning and implementing activities at the community level and promote local capacity building. At the same time adult educators and environmentalists should work together in influencing policy, at both national and international levels. National and international NGOs can be important partners in this process.

Environmental education: a central theme for adult education

The integration of the environment into general and vocational adult education can provide a range of new opportunities for an environmental education which is more relevant to learners' concerns. This is particularly important for developing countries which are today experiencing serious environmental problems that directly affect people's lives.

Environmental education, if it is to be meaningful to adults in their daily lives, needs to address ecological questions in terms of the social, political and economic factors involved. In industrialised regions, for example, environmental education entails dealing with the crisis of modern production systems and their consequences for employment. In developing regions, on the other hand, it deals with issues relating to global production structures, national economy, international trade, local agriculture, development aid and foreign debt.

Kutch Mahila Vikas Sangathan, Gujrat, India

Kutch Mahila Vikas Sangathan (KMVS) is an organisation of rural women living in the arid border villages of Kutch District, Gujarat. The organisation, which was founded in 1989 and includes more than 1200 members, provides a range of projects aiming at supporting rural women, articulating their concerns and initiating new action to improve their lives and economic situation. A major focus of KMVS is ecological degradation and income generation. In Kutch, women are most affected by the negative consequences of ecological degradation. There is water scarcity and soil salinity. KMVS has initiated an education programme including a water harvesting programme. The programme met with serious resistance from the men of the village. Women are traditionally responsible for fetching water, while resource management is a male task. Addressing water scarcity resulted in a complex situation where the women also had to deal with the question of rights to land holdings. This is a politically sensitive and touches on issues of caste and gender.

One of the big challenges for environmental adult education is to change the widespread belief that what happens to the environment is not caused by our own actions, but by someone somewhere else. Yet adult educators are aware of the fact that, although community action is a powerful tool, there are clear limits to what can be achieved at this level, especially when local political and social conditions are taken into account.

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The Fisherfolk Environmental Education Project

Tambuyog Development Centre (TDC) has developed an environmental education and training programme for coastal communities. Fishermen and women learn to understand the political, economic and biological factors which lead to the growing destruction of the marine ecosystem. Several factors are involved:

- the exploitation of resources through the fishing industry;
- the fact that the fishermen and women have no property rights over the sea and the mangrove areas;
- the support given by power structures to the fishing industry;
- the deteriorating income of fishermen and women;
- the use of dynamite to catch fish.

The project helps fishermen and women to understand their own complex situation. At the same time it provides them with the necessary insights into the existing power structures. It creates an awareness of the effects of the use of dynamite on fishing resources and the status of the mangroves. TDC's environmental education project includes holding workshops and the use of educational comic books to reach a larger public.

But awareness-raising activities alone cannot lead to sustained change. TDC is now providing resource management training for the fishing community, helping them in establishing local organisations and supporting alternative fishing techniques.

Economy versus ecology?

Although the negative effects of modern production and agricultural techniques on soil fertility, for example, are beginning to be recognised by many governments and aid agencies, yet there appears to be a continuing contradiction between the interests of economic growth and sustainable resource management. Technological progress is still considered a positive factor in economic development, even though it has many negative consequences for the natural environment. As a result, environ-

mental education often receives little attention and financial support from policy-makers. This is especially the case in countries which already have few resources for education.

In poor and marginalised communities, environmental education is often regarded as a luxury. Even in many industrialised countries, environmental issues are being given less attention than, say, 10 years ago. Very few countries are willing to experiment with radically new political solutions. In view of the present unemployment situation, solutions which aim at transforming the economy towards more ecologically sound patterns of production and consumption often clash with policies for short-term economic growth.

Environmental adult education often suffers from this mistaken conflict between economic growth and sustainable development. At times when economic needs are a priority, it might seem absurd to propose the integration of environmental dimensions into educational programmes. Yet this is a concern of many educators, social workers and development workers, in both developing and industrialised countries.

Environmental education has the urgent task of overcoming such misconceptions. It needs to stress that environmentally friendly technologies can be an opportunity to modernise and improve production systems. More importantly, such an education needs to reveal to its participants that an ecologically sound production strategy does not automatically imply higher costs and lower revenues. The use of renewable energy sources is a good example to show how such measures can help people improve their incomes.

Environmental education and women

Many women's groups and environmental organisations focus their work on household production and consumption, as this affects the lives of women directly. One of the main issues that women's projects address is the consumption of fuel, principally wood, for cooking and heating. Some projects are promoting a combination of methods of food preparation, cooking, heating and fuel substitution. Since women are often the primary collectors of wood and do most of the cooking themselves, many initiatives in this area focus on lowering their workload and improving their situation. At the same time they promote the use of environmental-friendly energy resources for the whole community.

The use of firewood or charcoal for cooking and heating is widespread. In many communities in Africa cooking is traditionally done on large fireplaces which consume great quantities of firewood. These traditional hearths can also lead to serious health problems, because women inhale large amounts of smoke as a result of spending many hours of cooking at the hearth daily. The use of wood also seriously depletes local forests. The resulting soil erosion has a negative impact on local agricultural production. However, as people seldom have an alternative to firewood, they continue to rely on wood despite their awareness of the negative consequences of wood cutting. In Uganda, a local organisation has developed an education programme to introduce clay stoves in the villages. It aims to equip communities with the skills and knowledge needed to manage their natural resources in a sustainable manner. People are also trained in new methods of charcoal production which use considerably less wood than traditional methods. Moreover, the production and sale of charcoal provides families with an additional income. The project also supports the replanting of trees in communities, in which a group of villagers is trained which then disseminates its skills to other community members.

Many local associations and NGOs are promoting the use of fuel-efficient stoves. These come in many different designs and use different materials. Solar cooking and heating are also being promoted. The savings in fuel consumption range from 0% to 40% depending upon the quality of the project, funding, the extent of local initiative and participation as well as on cultural acceptance of the innovation.

In some places people are supplied with supplementary fuels, the consumption of which is less damaging to the natural environment than wood. Among the substitutes being tried are charcoal, peat, crop residues, kerosene, bio-gas and carbonaceous briquettes.

Projects, such as the one from Uganda, often combine the introduction of energy conservation methods with strategies to protect and restore trees and other vegetation. This is done through the promotion of domestic tree-planting, shelter belts, live fencing, agro-forestry and organic gardening.

What is chosen as the focus of environmental action depends much on local conditions. Firewood consumption is a crucial problem in Uganda. For the fishing community in the Philippines the biggest issue is the state of the mangroves and over fishing. In arid and semi-arid regions of Senegal, access to water is the major environmental problem.

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The global dimension

"Thinking globally and acting locally", which has been a frequently heard slogan since the 1992 UNCED conference in Rio de Janeiro, is one of the guiding principles of most environmental adult education programmes. While community initiatives are vital, it is evident that the local level cannot be the only focus of change. It is also necessary to create greater awareness of global environmental problems, through networking, advocacy and lobbying at all levels, from government to the factory floor.

Because of the global dimensions of current problems, environmental education for one region must include environmental education elsewhere. For example, environmental education for Africa must start with educating people in the North, because as long as industrialised countries continue to take large quantities of timber from Africa, Asia and Latin America, deforestation and desertification in these regions cannot stop. At the same time environmental conditions – water, energy, climate and soil – are different in each region and each local context. Educational tools therefore need to take into account the specific cultural, political and environmental contexts.

Local knowledge

Environmental learning encourages participation. It builds a vision in which the contributions of women, men, persons of different colours, abilities and creeds, indigenous people, the young and the old are equally respected. Environmental education explicitly draws from the knowledge of indigenous people and those who are closest to the land.

The need to promote and build on local knowledge and indigenous traditions has been repeated time and again. That communities often possess immensely valuable knowledge and mechanisms for coping with often harsh environments is widely known and acknowledged. The expertise of the learners, who have a first-hand experience of the changing environmental balance, is regarded as an important source of knowledge. Similarly, the role and authority of local communities in protecting their own environment is stated in many policy papers and reports. But in reality many indigenous populations today have been deprived of their rights, including property rights over the land they inhabit. Backed by national governments, international companies make enormous profits

by exploiting national resources on a large scale. In Malaysia, for example, communities' livelihood is seriously threatened as their lands are being destroyed by logging and plantations.

In these contexts, local concepts of resource management and conservation techniques have lost their meaning. Traditional knowledge, which functioned as part of a system of governance, no longer exists. It is often claimed that environmental education needs to include traditional knowledge and has a specific responsibility to revive and promote such traditions. However, in a context which is characterised by economic exploitation and political domination, local systems of preservation, which rely on local authority and control over resources, may no longer be effective.

It is nevertheless possible and even necessary to use traditional knowledge in environmental education, provided that local traditions are reassessed in the context of the present conditions. This process of analysis and comparison of different strategies should be carried out in conjunction with and under the control of local populations. A process of critically assessing the value of local experience and avoiding externally imposed solutions should form the core of any environmental education programme. Otherwise such initiatives face the risk of becoming mere folklore programmes.

Wainimate – Save the Plants that Save Lives, Fiji

Wainimate is an association of traditional healers, nurses, environmentalists and community educators living in Fiji. It promotes the use of safe and effective traditional medicines and the conservation of medicinal plants. It has established demonstration gardens growing medicinal plants and dealing with traditional medicine. Workshops focus on traditional medicines used to treat common diseases, such as skin diseases. Participants are invited to carry out ethno-botanical surveys to analyse how plants can be used in the treatment of diseases and for assisting people to record information about useful plants. In this way it promotes the preservation of important knowledge. Another important area of the association's work is finding ways of generating income from traditional medicine.

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Conclusion

The experiences presented during the workshop have highlighted a number of problems facing current adult environmental education.

- Government and donor polices with regard to adult environmental education are in a precarious state.
- Environmental education is less developed in adult and non-formal sectors than in schools.
- Teaching practices in environmental adult education often tend to be limited to the transmission of knowledge rather than to promoting a critical examination of environmental problems.
- Practical solutions are seldom promoted in environmental education for adults.
- Environmental education is seldom linked to the immediate environment of the participants.
- There is often a bias towards promoting 'expert' knowledge and scientific and technological approaches.
- There is still the pervading notion that science is neutral, progress linear and growth unlimited. In other words, rather than critiquing dominant models of development and economic growth, adult environmental education remains locked within ideologies which have caused many of our contemporary environmental problems.

In addition to discussing the many difficulties facing the current adult environmental education, the workshop proposed a range of possible solutions and approaches. These include a close collaboration with the community and a democratic approach to project planning and implementation. Other strategies proposed were the integration of social, political and environmental issues into adult education programmes, identifying problems and the use of experimental and creative teaching/learning methods. The active involvement of non-governmental organisations and local associations has been an important factor contributing to the growing prominence being given to environmental adult education.

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The CONFINTEA logo, designed by Michael Smitheram of Australia, represents the lines on the palm of a hand. These lines are universal and yet different for each subject. They celebrate cultural diversity and the joy of learning.

Theme 6

Adult learning in the context of environment, health and population

Booklets under this theme:

a Adult environmental education: awareness and environmental action
b Health promotion and health education for adults
c Adult education and population issues in the post-Cairo context